Sadman Kazi

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Skills

Languages C++, C, Python, Lua, Java, Rust, C#, Assembly, Javascript, GLSL, Octave, SQL
Technologies OpenGL, Android, STL, Boost, Qt, GTK+, Maven, CMake, PostgreSQL, Spark, Hadoop, Thrift, Unity3d, Unreal

Experience

NVIDIA *Santa Clara, California*
Software Engineering Intern, Autonomous Vehicle (AV) Deep Learning Team *September 2018 - Present*

- Added support for evaluating performance metrics for sub-label classifier networks in Python
- Developed adaptable visualization for road signs labels and information in C++
- Developed **runtime configuration of classification models** with distinct output classes in C/C++
- Building **hierarchical deep neural network** model inference support for DRIVE platform in C++

NVIDIA *Santa Clara, California*
Software Engineering Intern, Android Deep Learning Team *January 2018 - April 2018*

- Built home security service for Shield TV with offline DL intelligence & HD event recording, from USB & IP camera streams
- Added inference control so SDK apps use up to **90% less GPU**, allowing other applications to run in the foreground

Wave Computing *Campbell, California*
Contractor *September 2017 - December 2017*
Software Engineering Intern, System and Architecture Team *May 2017 - August 2017*

- Rewrote & optimized legacy C simulator code to maintainable object-oriented **C++11** code, running **15% faster**
- Added modular CMake builds, multiprocess automated tests & CI pipelines, improving workflow for multiple projects
- Worked on mapping **Keras deep learning models** & **TensorFlow operators** to C++ models runnable on Wave chips
- Mentored coworkers on how to improve collaboration, code quality & workflow through use of git, code reviews & CI

Extreme Networks *Toronto, Ontario*
Software Engineer Co-op, WLAN Infrastructure Team *September 2016 - December 2016*
Built REST API in Java for configuring WLAN controllers

Autodesk Inc. *Montréal, Québec*
Software Developer Intern, Autodesk Live *January 2016 - April 2016*
Worked on building a software for immersive visualization of architectural models

Deloitte Canada *Kitchener, Ontario*
Software Engineer, d{} Lab *May 2015 - August 2015*
Built a real-time communication architecture for large-scale sensor networks (for mining)

University of Waterloo NanoRobotics Group *Waterloo, Ontario*
Technical Lead, Controls Team *May 2016 - December 2017*
Led development of the controls software for ICRA 2016-2018 (winning multiple first place awards)

Projects

3D Game Engine C++ • GLSL • OpenGL • SDL
Cross-platform 3D game engine that supports shaders, materials, first person camera, Phong lighting, and scene loading.

Servo Rust • Python
Open source contributions to Mozilla's high-performance parallel browser engine.

Education

University of Waterloo *Waterloo, Ontario*
Candidate for Bachelor of Software Engineering. GPA 3.4 *2014 - 2019 (Expected)*
Notable Courses: OS, Algorithms, DB, AI, Data Structures, Architecture, Concurrency, Distributed Computing, Networks.